

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2006-24949; Directorate Identifier 2006-NM-110-AD; Amendment 39-14626; AD 2006-12-02]

RIN 2120-AA64

Airworthiness Directives; Airbus Model A318, A319, A320, and A321 Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all Airbus Model A318, A319, A320, and A321 airplanes. This AD requires inspecting to determine the part number and serial number of the fuel tank boost pumps and, for airplanes with affected pumps, revising the Airplane Flight Manual (AFM) and the FAA-approved maintenance program. This AD also provides for optional terminating action for compliance with the revisions to the AFM and the maintenance program. This AD results from a report that a fuel tank boost pump failed in service, due to a detached screw of the boost pump housing that created a short circuit between the stator and rotor of the boost pump motor and tripped a circuit breaker. We are issuing this AD to ensure that the flightcrew is aware of procedures to prevent the presence of a combustible air-fuel mixture in the fuel tank boost pump, which, in the event of electrical arcing in the pump motor, could result in an explosion and loss of the airplane.

DATES: This AD becomes effective July 3, 2006.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of July 3, 2006.

We must receive comments on this AD by August 15, 2006.

ADDRESSES: Use one of the following addresses to submit comments on this AD.

- DOT Docket Web site: Go to <http://dms.dot.gov> and follow the instructions for sending your comments electronically.
- Government-wide rulemaking Web site: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.
- Mail: Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590.
- Fax: (202) 493-2251.

- Hand Delivery: Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Contact Airbus, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France, for service information identified in this AD.

FOR FURTHER INFORMATION CONTACT: Tim Dulin, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2141; fax (425) 227-1149.

SUPPLEMENTARY INFORMATION:

Discussion

The European Aviation Safety Agency (EASA) notified us that an unsafe condition may exist on certain Airbus Model A318, A319, A320, and A321 airplanes. The EASA advises that an operator reported the failure of a fuel tank boost pump in service. Subsequent investigation revealed that one of two screws that hold the gas return connector to the top of the boost pump housing had become unscrewed. The screw fell into the boost pump motor and created a short circuit between the stator and rotor, which caused a circuit breaker to trip.

It was determined from further investigation that the screw came loose because of an inadequate screw locking mechanism and because the screw had not been tightened to the correct torque value. This failure mode was not identified during the design review conducted by the manufacturer in accordance with Special Federal Aviation Regulation No. 88 ("SFAR 88," Amendment 21-78, and subsequent Amendments 21-82 and 21-83). This condition, if not corrected, could lead to a screw becoming detached, which could compromise the integrity of the explosion-proof housing of the boost pump motor and create a potential ignition source. We are issuing this AD to ensure that the flightcrew is aware of procedures to prevent the presence of a combustible air-fuel mixture in the fuel tank boost pump, which, in the event of electrical arcing in the pump motor, could result in an explosion and loss of the airplane.

Relevant Service Information

Airbus has issued Temporary Revision (TR) 4.03.00/28, dated May 4, 2006. The TR describes a revision to the Airbus A318/A319/A320/A321 AFM. The revision specifies conditions under which the center tank fuel boost pumps must be turned off to ensure that the center tank fuel boost pumps remain immersed in fuel during flight.

The EASA mandated the TR to ensure that the center fuel tank boost pumps are immersed in fuel at all times during flight. The EASA also mandated "AFM and Airworthiness limitations" to ensure that the pumps are turned off during refueling and that the pumps are immersed in fuel at all times during ground fuel transfer and defueling. The EASA issued emergency airworthiness directive 2006-0106-E, dated May 2, 2006, to ensure the continued airworthiness of these airplanes in the European Union.

FAA's Determination and Requirements of This AD

These airplane models are manufactured in France and are type certificated for operation in the United States under the provisions of section 21.29 of the Federal Aviation Regulations (14 CFR 21.29) and the applicable bilateral airworthiness agreement. As described in FAA Order 8100.14A, "Interim Procedures for Working with the European Community on Airworthiness Certification and Continued Airworthiness," dated August 12, 2005, the EASA has kept the FAA informed of the

situation described above. We have examined the EASA's findings, evaluated all pertinent information, and determined that we need to issue an AD for products of this type design that are certificated for operation in the United States.

Therefore, we are issuing this AD to ensure that the flightcrew is aware of procedures to prevent the presence of a combustible air-fuel mixture in the fuel tank boost pump, which, in the event of electrical arcing in the pump motor, could result in an explosion and loss of the airplane. This AD requires inspecting to determine the part number and serial number of the fuel tank boost pumps and, for airplanes with affected pumps, revising the AFM to require including the information in the TR, and revising the AFM and the FAA-approved maintenance program to mandate the limitations described earlier. This AD also provides for optional terminating action for compliance with the revisions to the AFM and the maintenance program.

Differences Between the EASA Emergency Airworthiness Directive and This AD

The EASA emergency airworthiness directive specifies to revise the AFM "from the effective date of this AD;" however, this AD requires revising the AFM within 10 days after the effective date of this AD.

The EASA emergency airworthiness directive applies to Airbus Model A318, A319, A320, and A321 airplanes equipped with Eaton Aerospace Limited fuel pumps, having part number (P/N) 568-1-27202-005 with serial number (S/N) 6137 and subsequent. However, this AD applies to all Model A318, A319, A320, and A321 airplanes, and requires that operators perform an inspection to determine the P/N and S/N of the fuel tank boost pumps within 10 days after the effective date of this AD.

In addition, the EASA emergency airworthiness directive does not specify a terminating action; however, this AD specifies that replacing all subject fuel tank boost pumps with boost pumps not having the identified P/N and S/N is acceptable as an optional terminating action for compliance with the revisions specified for the AFM and maintenance program revisions.

Interim Action

We consider this AD interim action. If final action is later identified, we may consider further rulemaking then.

FAA's Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD; therefore, providing notice and opportunity for public comment before the AD is issued is impracticable, and good cause exists to make this AD effective in less than 30 days.

Comments Invited

This AD is a final rule that involves requirements that affect flight safety and was not preceded by notice and an opportunity for public comment; however, we invite you to submit any relevant written data, views, or arguments regarding this AD. Send your comments to an address listed in the ADDRESSES section. Include "Docket No. FAA-2006-24949; Directorate Identifier 2006-NM-110-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the AD that might suggest a need to modify it.

We will post all comments we receive, without change, to <http://dms.dot.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this AD. Using the search function of that Web site, anyone can find and read the comments in any of our dockets, including the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You

may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78), or you may visit <http://dms.dot.gov>.

Examining the Docket

You may examine the AD docket on the Internet at <http://dms.dot.gov>, or in person at the Docket Management Facility office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Management Facility office (telephone (800) 647-5227) is located on the plaza level of the Nassif Building at the DOT street address stated in the ADDRESSES section. Comments will be available in the AD docket shortly after the Docket Management System receives them.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
3. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket. See the ADDRESSES section for a location to examine the regulatory evaluation.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39–AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The Federal Aviation Administration (FAA) amends § 39.13 by adding the following new airworthiness directive (AD):

AIRWORTHINESS DIRECTIVE

www.faa.gov/aircraft/safety/alerts/
www.gpoaccess.gov/fr/advanced.html

U.S. Department
of Transportation
**Federal Aviation
Administration**



2006-12-02 Airbus: Amendment 39-14626. Docket No. FAA-2006-24949; Directorate Identifier 2006-NM-110-AD.

Effective Date

- (a) This AD becomes effective July 3, 2006.

Affected ADs

- (b) None.

Applicability

- (c) This AD applies to all Airbus Model A318, A319, A320, and A321 airplanes, certificated in any category.

Unsafe Condition

- (d) This AD results from a report that a fuel tank boost pump failed in service, due to a detached screw of the boost pump housing that created a short circuit between the stator and rotor of the boost pump motor and tripped a circuit breaker. We are issuing this AD to ensure that the flightcrew is aware of procedures to prevent the presence of a combustible air-fuel mixture in the fuel tank boost pump, which, in the event of electrical arcing in the pump motor, could result in an explosion and loss of the airplane.

Compliance

- (e) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Part and Serial Number Inspection

- (f) Within 10 days after the effective date of this AD, inspect to determine the part number (P/N) and serial number (S/N) of each fuel tank boost pump installed in the wing and center fuel tanks. A review of maintenance records may be performed instead of the required inspection if the P/N and S/N of the fuel boost pump can be conclusively determined from that review. For any airplane not equipped with any Eaton Aerospace Limited (formerly FR-HITEMP Limited) fuel pump having P/N 568-1-27202-005 with S/N 6137 and subsequent: No further action is required by this AD for that airplane except as described in paragraph (i) of this AD.

Revisions to the Airplane Flight Manual (AFM) and the Maintenance Program

- (g) For airplanes equipped with one or more Eaton Aerospace Limited (formerly FR-HITEMP Limited) fuel boost pumps, having P/N 568-1-27202-005 with S/N 6137 and subsequent: Prior to

further flight after accomplishing the inspection required by paragraph (f) of this AD, do the actions specified in paragraphs (g)(1) and (g)(2) of this AD.

(1) Revise the Limitations section of the Airbus A318/A319/A320/A321 AFM and the FAA-approved maintenance program by incorporating the following. This may be accomplished by inserting copies of this AD into the AFM and the maintenance program.

"Apply the following procedure at each fuel loading:

Refueling:

Before refueling, all pumps must be turned off, in order to prevent them from automatically starting during the refueling process.

Ground fuel transfer:

For all aircraft, do not start a fuel transfer from any wing tank, if it contains less than 700 kg (1550 lb) of fuel.

For A318, A319, and A320 aircraft with a center tank, do not start a fuel transfer from the center tank, if it contains less than 2,000 kg (4,500 lb) of fuel.

If a tank has less than the required quantity, it is necessary to add fuel (via a transfer from another tank or refueling) to enable a transfer to take place.

Defueling:

For all aircraft, when defueling the wings, do not start the fuel pumps if the fuel quantity in the inner tank (wing tank for A321) is below 700 kg (1,550 lb). If the fuel on the aircraft is not sufficient to achieve the required fuel distribution, then transfer fuel or refuel the aircraft to obtain the required fuel quantity in the wing tank.

For A318, A319, and A320 aircraft with a center tank, when performing a pressure defuel of the center tank, make sure that the center tank contains at least 2,000 kg (4,500 lb) of fuel. If it has less than the required quantity, then transfer fuel to the center tank. Defuel the aircraft normally, and turn OFF the center tank pumps immediately after the FAULT light on the corresponding pushbutton-switch comes on."

(2) Revise the Limitations section of the AFM to incorporate the changes specified in Airbus Temporary Revision (TR) 4.03.00/28, dated May 4, 2006. This may be accomplished by inserting a copy of the TR into the AFM. When general revisions of the AFM have been issued that incorporate the revisions specified in the TR, the copy of the TR may be removed from the AFM, provided the relevant information in the general revision is identical to that in TR 4.03.00/28.

Optional Terminating Action

(h) Replacement of all subject fuel boost pumps on any airplane with boost pumps having a P/N other than P/N 568-1-27202-005; or with boost pumps, P/N 568-1-27202-005, having a S/N other than 6137 and subsequent; constitutes terminating action for this AD, and the limitations required by paragraph (g) of this AD may be removed from the AFM and the maintenance program for that airplane.

Parts Installation

(i) As of the effective date of this AD, no person may install a boost pump, P/N 568-1-27202-005, having S/N 6137 and subsequent, on any airplane.

Alternative Methods of Compliance (AMOCs)

(j)(1) The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested in accordance with the procedures found in 14 CFR 39.19.

(2) Before using any AMOC approved in accordance with § 39.19 on any airplane to which the AMOC applies, notify the appropriate principal inspector in the FAA Flight Standards Certificate Holding District Office.

Related Information

(k) The European Aviation Safety Agency (EASA) emergency airworthiness directive 2006-0106-E, dated May 2, 2006, also addresses the subject of this AD.

Material Incorporated by Reference

(l) You must use Airbus Temporary Revision 4.03.00/28, dated May 4, 2006, to perform the actions that are required by this AD, unless the AD specifies otherwise. (The approval date of Airbus Temporary Revision 4.03.00/28 is only indicated on page one of the document.) The Director of the Federal Register approved the incorporation by reference of this document in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact Airbus, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France, for a copy of this service information. You may review copies at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street, SW., Room PL-401, Nassif Building, Washington, DC; on the Internet at <http://dms.dot.gov>; or at the National Archives and Records Administration (NARA). For information on the availability of this material at the NARA, call (202) 741-6030, or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on June 7, 2006.

Kevin M. Mullin,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

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